



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Charles Drevna
Executive Vice President
National Petrochemical and Refiners Association
1899 L St. NW, Suite 1000
Washington, DC 20036

Re: Nationwide Ultra-Low Sulfur Diesel Fuel Sampling and Testing Program -
Enforcement Discretion

Dear Mr. Drevna:

The clean diesel program, which begins later this year, is the United States Environmental Protection Agency's (EPA) most ambitious strategy to date to reduce emissions from heavy-duty diesel vehicles. The clean diesel program pairs engine technology and fuel changes to reduce diesel vehicle particulate matter emissions by 90 percent and nitrogen oxide emissions by 95 percent. However, emissions control technologies for the new engines require diesel fuel with significantly reduced sulfur levels to function. Thus, the clean diesel fuel program requires that sulfur levels in diesel fuel be reduced from the current level of 500 parts per million (ppm) to 15 ppm.

The success of the clean diesel program requires that the petroleum industry and EPA take steps to assure that ultra-low sulfur diesel (ULSD) fuel meets this new sulfur standard when dispensed into vehicles. This letter describes a nationwide sampling, testing and reporting program for ensuring that fuels that meet the clean diesel program requirements are dispensed into vehicles at retail stations.

The clean diesel program regulations require refiners, importers and distributors who produce, import, sell, store or transport ULSD to meet the ULSD sulfur standard specified in the regulations. Where a ULSD sulfur standard violation is identified at a retail outlet, liability is imputed to the retailer responsible for dispensing the non-compliant fuel, as well as the refiner(s), importer(s) and distributor(s) of such fuel. See 40 C.F.R. § 80.612(a). In addition, where the corporate, trade or brand name of a refiner appears at a retail outlet found in violation, that brand refiner also is imputed to be liable for the violation. See 40 C.F.R. § 80.612(a)(3).

The ULSD regulations further provide, however, that any distributor deemed liable will not be deemed in violation if it can establish, inter alia, that it conducted a quality assurance

sampling and testing program as proscribed by the regulations. See 40 C.F.R. §§ 80.613(d). Likewise, under 40 C.F.R. §§ 80.613(a)(1) and 80.613(b), the aforementioned refiners and importers deemed liable will not be deemed in violation of the regulations under certain specified conditions. Refiners and importers are not liable if they can establish, inter alia, that the violation was caused by the action of a third-party distributor or retailer who violates product handling procedures that were contractually-required by the refiner, despite periodic sampling and testing to ensure compliance with the contractual obligation.

The National Petrochemical and Refiners Association (NPRA) has asked EPA to allow a nationwide sampling and testing program to be used as an alternative means of meeting the sampling and testing defense elements under 40 C.F.R. § 80.613. This proposed ULSD program, which would include a nationwide sampling program that will produce statistically-significant sampling in urban areas, transportation corridors and rural areas, is modeled generally on the reformulated gasoline (RFG) survey program required by 40 C.F.R. § 80.68. The proposed ULSD program is described in more detail in the enclosure included with this letter.

Under the proposed ULSD program, statistically valid data of the sulfur content of ULSD would be generated and reported to EPA each calendar quarter. The program would be conducted by an independent survey organization that is funded by a consortium of refiners, importers and distributors, following a survey plan approved by EPA. In addition, where the survey determines that ULSD violates the applicable sulfur standard, the liable parties would be responsible for identifying and addressing the root cause of the violation to prevent future violations.

Under the proposed ULSD program, EPA would reserve the right to bring an enforcement action based on the survey test results. Specifically, EPA would be able to bring an enforcement action when ULSD exceeds the sulfur standard prescribed by the regulations. EPA agrees that it may pursue an enforcement action where sulfur in fuel at a retail outlet exceeds the applicable retail standard by more than 2 ppm or such retail outlet previously has been determined to have dispensed fuel in excess of the retail sulfur standard. EPA may also pursue enforcement against any potentially liable party where the ULSD survey program requirements are not being followed or where the terminal that supplied the retail outlet dispensed ULSD with a sulfur content higher than 15 ppm. In other words, EPA may pursue enforcement where the survey finds ULSD that violates the applicable retail sulfur standard by more than 2 ppm, the retail station had been previously determined to have violated the ULSD standard, the parties involved in supplying fuel to the retail outlet did not participate in the survey consortium or follow the survey program requirements, or the terminal that supplied the retail outlet does not demonstrate its ULSD had a sulfur content no higher than 15 ppm.

Refiners that participate in the ULSD program consortium would be deemed to have met the sampling and testing defense element under 40 C.F.R. § 80.613, provided the ULSD program requirements are followed. Distributors that operate under the trade or brand name of a participating refiner also would be deemed to have met the sampling and testing defense element.

Distributors that do not operate under the trade or brand name of a refiner also may independently participate in the consortium, as well as distributors that do operate under a refiner's trade or brand name but the refiner elects to not participate in the consortium. Such a distributor who independently participates in the consortium would be deemed to have met the sampling and testing defense element.

A refiner that does not participate in the consortium will continue to be subject to the sampling and testing defense provisions under 40 C.F.R. § 80.613, as will distributors that operate under such a refiner's trade or brand name unless such a distributor independently participates in the consortium. In addition, EPA will enforce all violations of the ULSD standard found at retail outlets supplied by such non-participating refiners or distributors.

This program would result in programmatic benefits that are equivalent or superior to the sampling and testing requirements under 40 C.F.R. § 80.613. As a consequence, EPA intends to initiate a rulemaking to consider alternative means of complying with the sampling and testing requirements under 40 C.F.R. § 80.613.

In addition, based upon the programmatic benefits of the proposed ULSD program, described above and in the enclosure to this letter, I am exercising enforcement discretion to allow use of this alternative means of meeting the sampling and testing defense element under 40 C.F.R. § 80.613 until completion of such rulemaking.

This exercise of enforcement discretion is effective immediately, and terminates upon the effective date of the rulemaking, or on December 31, 2008, whichever is earlier. Furthermore, this exercise of enforcement discretion may be revoked or modified by EPA at any time in its sole discretion.

If you have questions, please call Mr. Erv Pickell of my staff, at (303) 236-9506.

Sincerely,



Granta Y. Nakayama
Assistant Administrator

cc: American Petroleum Institute

Enclosure

Refiner Consortium ULSD Testing Program

Program Description

Independent Survey Association

Branded refiners, as a consortium, hire an independent survey association to perform a statistically valid sampling and testing program of ultra-low diesel fuel (ULSD) at diesel fuel retail outlets nationwide (refiner consortium ULSD testing program). This is modeled on the RFG surveys that are conducted by an industry consortium. This program shall begin no later than October 15, 2006.

Survey Plan Design

The independent survey association shall, no later than August 1, 2006, submit to EPA for approval a proposed survey plan for the period October 15, 2006, through December 2007. The proposed survey plans for subsequent calendar years shall be submitted to EPA for approval each year no later than November 1 of the prior year. The proposed plan shall, at a minimum, include the following:

Number of Surveys

The survey plan shall include four surveys each calendar year (survey series). However, for the period October 15, 2006, through December 2007, five surveys shall be conducted.

Sampling Areas

The survey plan shall include sampling in three types of areas (sampling strata) during each survey: Densely populated areas, transportation corridors and rural areas. These sampling strata shall be further divided into discrete sampling areas or clusters, which shall be sufficient in number to result in a statistically valid national sampling program. Each survey shall include sampling in approximately 110 sampling areas, probabilistically selected, and shall include sampling areas from each stratum.

EPA may direct the survey association to include any sampling area in any survey. Sampling areas directed by EPA count toward the 110 sampling areas per survey requirement.

No Advance Notice of Surveys

The survey plan shall include procedures to keep confidential from any regulated party, but not from EPA, the identification of the sampling areas that are included in any survey plan prior to the beginning of a survey in an area.

Retail Station Selection

The retail outlets to be sampled in a sampling area shall be selected from among all retail outlets in the sampling area that sell ULSD, with probability proportionate to the volume of ULSD sales at the retail outlets (or an equivalent measure), and inclusion of retail outlets with different brand names and unbranded, if possible.

In addition, in the case of any retail outlet from which a ULSD sample was collected during a survey and determined to have a sulfur content that exceed the ULSD standard applicable to downstream facilities (the downstream ULSD standard)¹, that retail station shall be included in the subsequent survey.

Only a single sample shall be collected at each retail outlet, except that where a retail outlet had a sample from the preceding survey with a test result that exceeds the downstream ULSD standard, separate samples shall be taken that represent the diesel fuel contained in each storage tank containing ULSD, unless collection of separate samples is not practicable (for example, due to diesel plumbing arrangements or pump outages).

Number of Samples

The number of samples to be included in the surveys conducted during the period October 15, 2006, through December, 2007, shall be a minimum of 8,970 samples. This sample number is calculated using the formula specified below, with a standard deviation of 3.0, an allowable error of 0.5 ppm, F_a equal to 1.15 and F_b equal to 1.32. With some upward adjustments required in order to allocate the stratum samples in whole units to clusters, this calculation results in a one-year sample size of 7,176 samples, incremented to reflect the additional survey that occurs in 2006.

The number of samples to be included in survey plans for 2008 and thereafter, per calendar year, shall be calculated as follows:

¹ The ULSD sulfur standard that applies to facilities downstream of refineries and import facilities is set by 40 C.F.R. § 80.580. As of the date of this document this sulfur standard is a maximum of 17 ppm. However, a direct final rule has been published, but not finalized, that would change the downstream sulfur standard to a maximum of 18 ppm during the period October 15, 2006, to October 15, 2008, after which the downstream sulfur standard would become a maximum of 17 ppm. For purposes of this ULSD refiner consortium sulfur testing program, the downstream standard in effect at the time a sample is collected will apply to the treatment of that sample under this program.

$$n = \left\{ \left[(Z_{\alpha} + Z_{\beta})S \right]^2 / A^2 \right\} * St_n * F_a * F_b * Su_n$$

Where:

- n = number of samples in a year-long survey series. However, in no case shall n be larger than 9,600 or smaller than 5,250.
- Z_{α} = upper percentile point from the normal distribution to achieve a one-tailed 95% confidence level (5% α -level). Thus, Z_{α} equals 1.645.
- Z_{β} = upper percentile point to achieve 95% power. Thus, Z_{β} equals 1.645.
- S = standard deviation of the variation in the sulfur content of all samples collected and analyzed during the previous four surveys, or, in the case of the survey plan for 2008, all samples collected and analyzed from the beginning of the program on October 15, 2006. However, in no case shall the value of S be larger than 3.5 ppm or smaller than 2.5 ppm.
- A = allowable error. For purposes of this survey program, A equals 0.5.
- St_n = number of sampling strata. For purposes of this survey program, St_n equals 3.
- F_a = adjustment factor for the number of extra samples required to compensate for collected samples that cannot be included in the survey (oversampling), based on the rate of oversampling required during the previous four surveys, or, in the case of the survey plan for 2008, all sampling from the beginning of the program on October 15, 2006. However, in no case shall the value of F_a be smaller than 1.1.
- F_b = adjustment factor for the number of samples required to resample each retail stations with test results greater than 17 ppm (resampling), based on the rate of resampling required during the previous four surveys, or, in the case of the survey plan for 2008, all samples collected and analyzed from the beginning of the program on October 15, 2006. However, in no case shall the value of F_b be smaller than 1.1.
- Su_n = number of surveys per year. For purposes of this survey program, Su_n equals 4, except for the first survey series when Su_n equals 5.

The number of samples obtained from the above formula, after being incremented as necessary to allocate whole numbers of samples to each cluster, shall be distributed approximately equally for the surveys conducted during the calendar year (or during the period October 15, 2006 through December 2007 in the case of the first survey series). Within a survey, the samples shall be divided approximately equally for the three strata.

EPA may direct the survey association to include any number of samples in any sampling area. Samples directed by EPA count toward the number of samples required in the survey plan.

Sample Analysis

Samples collected at retail outlets shall be shipped the same day the samples are collected via overnight service to the laboratory, and analyzed for sulfur content within twenty-four hours after receipt of the sample in the laboratory.

Any laboratory to be used by the survey association for sulfur testing shall be approved by EPA and its sulfur test method shall comply with the provisions of 40 C.F.R. §§ 80.584, 80.585 and 80.586.

For purposes of this refiner consortium ULSD testing program, test results shall be rounded to a whole number using ASTM E 29-02e1 rounding method procedures.

Notice of Samples with High Sulfur Content

In the case of any test result that is one or two ppm greater than the downstream ULSD standard, the survey association shall, within twenty-four hours after the laboratory receives the sample, provide notification of the test result as follows: In the case of samples collected at retail stations at which the brand name of a refiner or importer is displayed, to the refiner or importer; and in the case of samples collected at other retail outlets, to the retailer. In the case of any test result that is three or more ppm greater than the downstream ULSD standard, the survey association shall, within the time limits specified above, provide notice to the parties described above and, in addition, to EPA.

The survey association shall provide this notice to the identified contact person or persons for each identified party in writing (email or facsimile) and, if requested by the identified contact person, by telephone.

Consequences of a Sulfur Test Result that is One or Two ppm Greater than the Downstream ULSD Standard

The following provisions apply if the tested sulfur level of a diesel fuel sample collected by the survey association that is one or two ppm greater than the downstream ULSD standard.

Branded Refiner

If the sample was collected at a retail station at which the brand name of a refiner or importer (refiner) is displayed, the branded refiner will be deemed to have established its defense under 40 C.F.R. § 80.613, provided that the refiner is a participant in the refiner consortium ULSD testing program, and provided that the refiner demonstrates the following:

- a. The sulfur content of the fuel at the terminal(s) that supplied the retail outlet was no greater than 15 ppm when dispensed for delivery to the retail outlet;²
- b. Best efforts and accepted business practices are used by downstream parties to avoid diesel fuel contamination. These would include, for example: Procedures for ensuring only ULSD is loaded into trucks for delivery to ULSD storage tanks at retail outlets; procedures for ensuring ULSD is not contaminated in delivery trucks; and procedures for ensuring delivery truck drivers can identify retail outlet drop points for ULSD.
- c. Following notification to the refiner by the survey association of the test result, as soon as practicable (normally within the same business day, but not longer than twenty-four hours unless the refiner demonstrates this timing is not possible) appropriate steps are taken to ensure the violating fuel is not dispensed into motor vehicles until the fuel at issue is tested to contain no more than the downstream ULSD standard. The appropriate steps consist of either shutting down any pumps supplied by the retail storage tank at issue, or re-labeling these pumps with the language required under 40 C.F.R. § 80.570(b).
- d. A root cause analysis is performed, and appropriate actions are taken to prevent future violations;
- e. The survey association retests at that retail station during the next survey, in addition to its scheduled sampling under the approved program;

² If the terminal sulfur test result is greater than 15 ppm but less than the downstream ULSD standard, EPA normally would initiate enforcement actions against parties presumed liable under 40 C.F.R. § 80.612 because of the retail station test result that exceeds the downstream ULSD standard. In addition, and assuming the parties are participants on the ULSD consortium and the other enumerated conditions are met, the following would result: The refiner would have met its defense under 40 C.F.R. § 80.613; the terminal operator would have established its defense under 40 C.F.R. § 80.613 based on a test result that is less than the downstream ULSD standard; and the distributor would have met its QA defense element under 40 C.F.R. § 80.613. However, EPA normally would collect a penalty from the distributor and/or the retailer based upon which party caused the violation.

- f. The refiner submits a report to EPA no later than 120 days following the date the sample was collected at the retail station, which includes the information specified in Appendix A; and
- g. The refiner supplies EPA with copies of contracts that include the specification of procedures that are reasonably calculated to prevent the contamination of ULSD, which demonstrate compliance with 40 C.F.R. §§ 80.613(b)(2) or (3).

Distributors and Retailers

The retailer, and distributors that would be presumed liable for this violation under 40 C.F.R. § 80.612 (e.g., pipeline, terminal operator, marketer, truck carrier), will be treated as if they have established their defense under 40 C.F.R. § 80.613, provided that:

- a. Within the prior two years the retail station has had no previous instances where the tested sulfur level of a diesel fuel sample collected by the survey association is greater than the ULSD standard that applies to downstream facilities; and
- b. The requirements specified for in Paragraphs a through f for branded refiners, above, are satisfied. These requirements may be satisfied by the branded refiner whose brand name appears at the retail station. In the alternative, these requirements may be satisfied by a distributor that supplies ULSD to unbranded retail outlets, provided that the distributor is a participant in the refiner consortium ULSD testing program.

Consequences of Sulfur Test Result that is Three or More ppm Greater than the Downstream ULSD Standard

The following provisions apply if the tested sulfur level of a diesel fuel sample collected by the survey association is three or more ppm greater than the downstream ULSD standard.

- a. EPA may initiate an enforcement action against any party presumed liable under 40 C.F.R. § 80.612.
- b. If the sample was collected at a retail station at which the brand name of a refiner is displayed, the branded refiner will be deemed to have established its defense under 40 C.F.R. § 80.613, provided that the refiner is a participant in the refiner consortium ULSD testing program, that the refiner meets the requirements specified in Paragraphs a through g for branded refiners, above, and that the refiner shows that it did not cause the violation as provided in 40 C.F.R. § 80.613(a)(1)(i).

- c. Distributors that supply diesel fuel to unbranded retail outlets and that participate in the refiner consortium ULSD testing program will be deemed to have satisfied the QA sampling and testing element of the defenses under 40 C.F.R. § 80.613 (a)(1)(iii), provided that the distributor meets the requirements specified in Paragraphs a through f for branded refiners, above.

Summary Survey Reports to EPA

The survey association shall provide to EPA quarterly and annual reports. Quarterly reports are due sixty days following the end of the quarter, and annual reports are due sixty days following the end of the year. These reports shall be submitted in electronic spreadsheet form and in hard copy. These reports shall include the following information:

- a. The identification of each sampling area included in a survey and the dates samples were collected in that area;
- b. The identification of each retail outlet sampled, the brand name displayed, if any, and the sample test result; and
- c. Sulfur level summary statistics by brand and unbranded for each sampling area, strata, survey and annual survey series. These summary statistics shall include the number of samples, and the average, median and range of sulfur levels.

EPA Inspections

If EPA inspects any facility and determines that the sulfur content exceeds the downstream ULSD standard, the violations will not be treated under this policy. However, branded refiners that are members of the consortium and have satisfied all the terms of this policy will be deemed to have met their branded refiner defense, and distributors that are member of the consortium and have satisfied all the terms of this policy will be deemed to have met the quality assurance defense element under 40 C.F.R. § 80.613(d). Any other party deemed liable under the regulations must establish its defense elements under § 80.613, including conducting a sampling and testing program under § 80.613(d), as applicable.

APPENDIX A

Contents of branded refiner report to EPA subsequent to diesel fuel sample at retail with a sulfur test result that is one or two ppm greater than the downstream ULSD standard.

1. Name, address and contact information for the branded refiner submitting the report.
2. Name, address and contact information for the retail station where the high sulfur diesel was found. Brand name used.
3. Date of sampling and analysis results and applicable sulfur standard as per pump label.
4. For the most recent three deliveries of diesel fuel to the retail station storage tank at issue (or the most recent five deliveries if the cause of the violation is not demonstrated following analysis of the most recent three deliveries):
 - The name, address and contact information for the terminal and truck distributor that supplied the diesel fuel;
 - The date of delivery and the volume of diesel fuel delivered;
 - Product transfer document designation and applicable standard;
 - The test results (or other evidence of the diesel sulfur content) for the diesel fuel in the terminal tank from which the delivery truck was loaded; and
 - A description of the procedures used by the truck distributor to avoid diesel contamination (e.g., dedicated trucks, etc.).
5. Actions taken to prevent sale of off-spec diesel fuel:
 - Date and time the refiner was notified of the high sulfur test result, the date and time the retailer was notified, and the date and time the sale of ULSD was suspended;
 - Description of the actions taken to prevent sales of the off-spec diesel fuel; and
 - Date and time ultra-low diesel fuel sales from the retail storage tank at issue were resumed, and a the results of the test used to establish the fuel was on-spec.
6. Root-cause analysis:
 - Description of the investigation conducted to determine the root-cause of the off-spec diesel fuel, and the conclusions reached as a result of this investigation; and

- Description of the steps taken to prevent future problems from the identified cause.
7. This report shall be submitted electronically, in writing. Relevant documents, such as test results, procedural manuals, etc., should be scanned to .pdf and attached.